

**FEDERAL COMMUNICATIONS COMMISSION
INDEPENDENT PANEL REVIEWING THE IMPACT OF HURRICANE KATRINA**

**Comments of G2 Satellite Solutions / Panamsat
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My name is Kay Sears and I work for G2 Satellite Solutions, the Government services provider of Panamsat, a global satellite operator. As a representative of the satellite industry, I would like to thank the FCC and Chairman Martin for taking a leadership role in finding solutions to improve disaster preparedness, network reliability and communications among first responders.

Satellite communications played a critical role during hurricane Katrina and its aftermath. When the telephone and broadcast networks went down, satellites remained to connect emergency personnel and other first responders. Satellites also enabled the world to witness the devastation of these disasters and also the many acts of heroism.

Although the performance of satellite systems was impressive, their use was limited by a lack of preparation. Had satellite systems been more effectively integrated into our emergency communications network, many of the communications problems that occurred in Alabama, Louisiana, and Mississippi would have been substantially mitigated. As FCC Chairman Martin recently stated, "if we learned anything from Hurricane Katrina, it is that we cannot rely solely on terrestrial communications".

The satellite industry and our satellite network infrastructure were not as affected by Hurricane Katrina. This is partially because satellites orbit high above the problems on the ground. In the hours, days, and weeks following these disasters, satellite networks provided critical communications capabilities to emergency personnel and a vital information link for all citizens -- whether via satellite radio, satellite television, or via fixed satellite broadband networks or mobile satellite telephony.

One aspect of our satellite communications infrastructure that can be impacted by hurricanes and natural disasters is the ground equipment -- VSATs and antenna infrastructure. This equipment can be damaged or blown off-point and require some readjusting to acquire the satellite network. In addition, to the degree that power outages occur with these disasters, generators are needed to power satellite equipment.

Despite this, in large part, while the outages on terrestrial networks surged in the days following Katrina, satellite networks were handling a corresponding surge -- in demand for capacity. The satellite voice, video, and data networks performed exactly as they were designed to perform -- providing reliable and redundant communications solutions in times of crisis. From transportable ATM machines to high-speed Internet access for families to

stay connected, the organizations using these satellite communications ranged from federal, state and local government agencies to schools, churches and local relief organizations. Small businesses such as retail gas stations and convenience stores, and larger businesses such as insurance companies, financial institutions, and news organizations also used satellite capacity.

For example, Hughes Networks Systems immediately re-established Wal-Mart's satellite communications network, helping Wal-Mart become one of the 'life-support systems' for the local communities during their recovery.

Intelsat, Ltd. reconfigured capacity and donated service to help cellular providers such as Cingular, and Nextel/Sprint, and long distance carriers MCI, and AT&T re-establish their networks as well as provide capacity for emergency services via mobile vans for relief agencies, and mobile offices and command centers for the Department of Homeland Security and the Federal Emergency Management Agency.

PanAmSat donated satellite capacity to the Red Cross to provide communications to about 40 of their sites and deployed inflatable antennas at the Red Cross center in Biloxi used by evacuees to send email messages to family. Panamsat also supported FEMA's fleet of first responder trucks and MCI's Big Blue to provide VoIP and data connectivity.

SES AMERICOM donated satellite capacity to enable high-speed ship-to-shore communications for the USS Iwo Jima -- which carried disaster relief teams to New Orleans with amphibious construction equipment and medical personnel and supplies.

Both XM Satellite Radio and DirecTV provided FEMA and the Red Cross with a 24/7 dedicated broadcast station for disseminating hurricane-related information. Following the storm, XM launched a new channel called Red Cross Radio (Channel 248) which provides information directly to Red Cross workers located in the Gulf Coast, as well as Red Cross aid stations.

Despite the tremendous contributions of the satellite industry to the rescue and recovery efforts in the Gulf region, barriers existed which prevented the full use of satellite resources. To enable rapid deployment and/or restoration and truly mobile communications, the Federal Government should incorporate satellite services and networks as a redundancy requirement in any communications network or architecture – and these resources must be pre-positioned. These solutions included satellite telephones, satellite bandwidth, as well as VSAT networks. The problem in the aftermath of the storm was the availability of equipment and bandwidth to satisfy demands. Satellite phones became very difficult to find. Despite shipping over 20,000 mobile phones in the days following Katrina, many additional requests went unmet. VSAT equipment, in the quantities requested, was also nearly impossible to obtain, let alone ensure either timely importation or delivery to isolated locations. The military's war on terror in Iraq and Afghanistan operates almost exclusively utilizing these types of satellite communications services because there is no terrestrial infrastructure or ubiquitous cellular network.

Satellite handsets and small, modern, pop-up antennas and satellite phones could have been pre-positioned on-site prior to Katrina and available for immediate deployment in the aftermath. In the hands of first-responders this technology could have provided the communications necessary to deploy safety of life services to those who needed it without delay.

These products work today. They provide redundancy today. They work with other communications today. As such, this Panel needs to facilitate a wider pre-positioned deployment of these assets today by ensuring that satellite capacity and equipment become part of the comprehensive redundant communications solutions used by first responders during the planning stages, rather than at the last minute.

The Satellite Industry has four specific recommendations for the Panel to consider:

- 1) Satellites must be an essential component of future critical communications networks;
- 2) Satellite capacity and equipment must be pre-purchased and pre-positioned;
- 3) Satellite operators and personnel must be credentialed as first responders; and,
- 4) Satellite spectrum must be preserved, and protected from interference.

We in the satellite industry are justifiably proud of the crucial part we have played in disaster recovery efforts by providing vital communications to relief workers, government agencies, churches, families and journalists. However, we have also been frustrated by the knowledge that we could have done much more. On behalf of the Satellite Industry, I urge this Panel to take steps to ensure that satellite systems are completely integrated into emergency planning and preparations so that the unique benefits our services offer can be fully exploited the next time disaster strikes.

Thank you for the opportunity to participate on this important panel.

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